

CLAIMS

1. A cable bolt comprising a tendon composed of a plurality of strands, the tendons having a plurality of bulbous portions, wherein all the strands in each bulbous portion are spaced apart from one another substantially about the periphery of each 5 bulbous portion, and a plurality of rigid elements, wherein the bulbous portions house the rigid elements, such that there is minimal clearance between an outermost surface of the rigid element and a broadest part of a cavity of the bulbous portion.
2. The cable bolt according to claim 1, characterised in that a bulb diameter of the bulbous portions varies along the length of the cable bolt.
- 10 3. The cable bolt according to claim 1 or claim 2, characterised in that a bulb frequency of the bulbous portions varies along the length of the cable bolt.
4. The cable bolt according to any one of the preceding claims, characterised in that the rigid element is a solid sphere.
- 15 5. The cable bolt according to any one of the preceding claims, characterised in that the minimal clearance is 0.2 mm to 3 mm.
6. The cable bolt according to any one of the preceding claims, characterised in that cable bolt is provided with a breather tube disposed adjacent to, and along the length of, the cable bolt, wherein the breather tube is adapted for egress of air out of a borehole when grout is pumped into the borehole.
- 20 7. The cable bolt according to claim 6, characterised in that the breather tube is fastened to the cable bolt along its length with suitable fastening means.
8. The cable bolt according to any one of the preceding claims, characterised in that at least the innermost bulbous portions inserted into a borehole are encased in resin.

9. The cable bolt according to claim 8, characterised in that a resin dam is provided adjacent to the encased innermost bulbous portions.

10. The cable bolt according to claim 9, characterised in that the resin dam comprises a larger bulbous portion encased in silicon and shrinkwrapped in a
5 polyethylene plastics material.

11. A cable bolt when used to stabilise a rock surface against collapse in hard rock mining, the cable bolt comprising a tendon composed of a plurality of strands, the tendons having a plurality of bulbous portions, wherein all the strands in each bulbous portion are spaced apart from one another substantially about the periphery of each
10 bulbous portion, and a plurality of rigid elements, wherein the bulbous portions house the rigid elements.

12. A cable bolt when used to stabilise a coal face against collapse in coal mining, the cable bolt comprising a tendon composed of a plurality of strands, the tendons having a plurality of bulbous portions, wherein all the strands in each bulbous portion
15 are spaced apart from one another substantially about the periphery of each bulbous portion, and a plurality of rigid elements, wherein the bulbous portions house the rigid elements.

13. A method of forming a cable bolt according to any one of the preceding claims, the method comprising the steps of:

20 a) prising apart two of the strands of a pre-formed bulbous portion;
b) inserting the rigid element into the cavity of the pre-formed bulbous portion;
and

c) releasing the prised apart strands such that an inherent tension in the prised apart strands encourages the strands to return to the original configuration of the pre-formed bulbous portion.

14. The method according to claim 13, characterised in that the strands are prised apart in step a) by inserting a wedge member into the cavity of the pre-formed bulbous portion, and retraction of the wedge member from the cavity effects release of the prised apart strands in step c).

15. The method according to claim 13 or claim 14, characterised in that the rigid element is retained in the cavity by a rod member until the prised apart strands are released and return to the original configuration in the pre-formed bulbous portion.

16. A cable bolt comprising a tendon composed of a plurality of strands, the tendons having a plurality of pre-formed bulbous portions, wherein all the strands in each pre-formed bulbous portion are spaced apart from one another substantially around the periphery of each pre-formed bulbous portion, and a plurality of rigid elements, wherein the rigid elements are inserted into the pre-formed bulbous portion and housed therein.